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ABSTRACT

Third-year students (equivalent to U.S. 9th graders, ages 14-15) in six rural and urban Japanese middle schools were given two questionnaires. Information was gathered on family background, school life, educational aspirations, sources of information about high school and high school entered. The number of students who returned one or both of the surveys was 1,175--a 98% response rate. Analysis of the data focused on hypotheses derived from theories of gender and educational stratification. Significant interaction was found between students' gender, parental educational levels, and students' aspirations and attainments during the transition period from middle school to high school. No evidence of tracking was discovered at the middle school level nor was any association found between parental education and early planning for high school entrance. Birth-order among males was not significantly associated with rank of high schools attended. A 23-item bibliography is included. (Author)

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# EDUCATIONAL DECISIONS, FAMILY BACKGROUND AND TRACKING IN THE JAPANESE MIDDLE SCHOOL

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Third-year students (equivalent to U.S. 9th graders, ages 14-15) in six rural and urban Japanese middle schools were given two questionnaires. Information was gathered on family background, school life, educational aspirations, sources of information about high school and high school entered. The number of students who returned one or both of the surveys was 1175 -- a 98% response rate. Analysis of the data focused on hypotheses derived from theories of gender and educational stratification. Significant interaction was found between students' gender, parental educational levels and students' aspirations and attainments during the transition period from middle school to high school. No evidence of tracking was discovered at the middle school level nor was any association found between parental education and early planning for high school entrance. Birth-order among males was not significantly associated with rank of high school attended.

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## 1.0 WHAT FACTORS AFFECT STUDENTS WHEN CHOOSING THEIR HIGH SCHOOLS?

The literature on educational stratification in the U.S. has often focused on the problem of reconciling the ideals of meritocracy with the reality of the effect that social class has on educational aspirations and attainments (Karabel, 1972; Sewell and Hauser, 1976; Carnoy and Levin, 1985; Brint and Karabel, 1990). A key issue in this research has been: "How do students decide which schools to attend, and do non-academic factors sway students' when they make their choices?" This research question is also important in Japan where the notion of a democratic society -- a society in which effort or ability will largely mold one's future and where education is free and open to all -- holds great prominence.

Kariya and Rosenbaum (1987:169) have argued that "educational selection in Japan closely resembles Young's (1958) model of a meritocracy." They suggest that the process of selection is "much clearer" in Japan than in the U.S., and hypothesize that due to this clarity students will select themselves out of the system, rather than being cooled out (see Karabel, 1972 for definition). Kariya and Rosenbaum show that middle school grades are a significant predictor of students' educational plans in their model. However, their analysis is damagingly simplistic in its assumptions, leaving out factors such as social class, birth-order and family wealth. All of these factors have been shown to affect high school attainments in both statistical analysis of national data sets (Bowman, 1981), and in ethnographies of Japanese middle and high schools (Singleton, 1967; Rohlen, 1983).

In this paper I will investigate the effects that non-academic factors have on children's educational decisions and outcomes. Using data collected in Japan during 1988 and 1989, I will examine whether or not a variety of factors (gender, birth-order, and family educational attainments) affect the aspirations and educational attainments of Japanese middle school students. While recognizing that the Japanese

examination system is a mechanism of educational selection that mitigates the effect of ascribed social characteristics to some degree -- and thus prevents a social caste system from arising -- I hypothesize that social status and wealth still play a large role in determining a child's educational options when entering high school.

To state the hypotheses specifically:

Given the current Japanese school system,

1. **Boys and girls, as well as first-born versus middle or youngest sons will have different educational aspirations.**
2. **Boys and girls, as well as first-born versus middle or youngest sons will have different patterns of educational attainment.**
3. **Higher levels of parental education will be associated with higher educational attainment for children.**
4. **Higher levels of parental education will be associated with higher educational aspirations for children.**
5. **While in general, Japanese middle school students are unclear about their high school plans, higher levels of parental education will be associated with clear goals on the part of children.**

## 2.0 BACKGROUND: THE JAPANESE EDUCATIONAL SYSTEM AND THE MIDDLE SCHOOL

Middle School: two Chinese ideographs succinctly record this meaning. I wish to emphasize the image of centrality which the first character conveys, for the middle school is the pivot point in the educational balance between elementary and secondary schooling. Unlike the U.S. -- where middle schools have only recently come into their own -- the Japanese educational system was created with the middle school as integral element.

Middle school in Japan corresponds to U.S. grades seven to nine and comprises the last years of compulsory education. Public middle schools have a curriculum distinct from elementary and high schools and are administered through separate divisions in both the prefectural boards of education and in the national Ministry of Education. 93.7% of Japanese go on to high school from middle school, (Ministry of Education, 1986:8). Despite American media hype over kindergartens with competitive enrollments and cram schools at the elementary level, only .5% of Japanese students attend private elementary schools and 2.9% attend private middle schools (Kariya and Rosenbaum, 1987:171). The bulk of Japanese children pass through the great institution of the

public middle school making a transition from free, compulsory education to expensive, non-compulsory schooling (i.e. high school).

The middle school is also known for its troubles. Incidences of juvenile delinquency are higher in the middle school than in the high school. A national police survey in 1986 showed that 92% of students questioned for bullying others were junior high school students (Japan Times 9/5/1986). And, in 1987, a Ministry of Justice study showed that 70% of reported cases of excessive physical punishment of students by teachers occurred in the middle schools (Mainichi 9/22/1987). Popular images of the "turbulent middle-school years" are reinforced by such books as Takeshi Hayashi's Fuzakeruna! Kosoku Part II (Hayashi, 1988) which depict middle-schoolers as rebellious and school rules as militaristic.

The middle school is a place of tremendous change for students. The higher incidences of unrest and rebellion suggest powerful transitions and pressures. Characteristically, middle school is where students make their first major decision in life: which high school to attend. At the same time, boys and girls are growing into young men and women. This is a time of immense concern to parents who often feel the need to make great sacrifices for their child's education.[1] (Yamada, 1990 and Mochidzuki, 1982 are excellent examples of the numerous "self-help" books on the market aimed at parents of middle schoolers.) In this atmosphere of change and uncertainty, students are asked to make up their "minds" and choose a high school. Because children are sorted into rigid high school tracks where there is virtually no mobility between tracks -- and where different tracks lead to educational and occupational opportunities of varying status -- this decision will have life-long repercussions (see Rohlen, 1983 and Bowman, 1981).

[1]See Yamada, 1990 for a model plan of "activities" developed for parents by using Tokyo Board of Education materials. Much of the plan exhorts parents to get the child to study harder and gives examples of exercises designed to create a strong, clear ambition in the mind of the child.

## 3.0 THE NATURE OF TRACKING IN JAPANESE SCHOOLS

In contrast to the USA, middle schools in Japan do not appear to be tracked. In this sample, Pearson correlations between a students' class in middle school and rank of high school show statistically insignificant correlations.[2] However, while there is no evidence of tracking at the middle school level, the high schools in the area studied are highly tracked.

Entrance to high schools is determined by a prefectural examination which is similar in structure to the entrance exams given by colleges. Prefectural rules vary as to the number of schools a student may apply to. Students in this sample could apply to only one public high school. If students fail to pass the entrance examination, they must attend a low-ranked private high school, night school or wait another year. It is very uncommon for students to spend a year cramming between middle school and high school as is the case between high school and college. Failing the entrance exam relegates students to rather low-status schools.

Japanese high schools display both inter- and intra-school tracking: distinctions in rank between schools and distinctions in rank between different lanes within a school. The public high school system is divided into 1) academic high schools of varying rank; 2) commercial, technical and agricultural high schools; 3) high schools for differently-abled students; and 4) night schools (primarily for those students unable to enter any other high school). While attendance at a given type of high school does not preclude any student from later taking the entrance test for an elite college, students from the commercial, technical, agricultural or night schools rarely take these tests. These lower-tier schools generally send their graduates into small to medium-sized companies, junior colleges or technical

[2]Pearson correlations of class in middle school and high school rank for three of the schools were:

-.047, prob. = .454; .033, prob. = .588; .024, prob. = .829

colleges. Most of these options are completely respectable in contemporary Japan, but they are definitely not accorded high-status among the general population. There is wide-spread agreement among the populace as to the relative status of high schools based on the school's history of placing students in good colleges.

Singleton (1967:20-21) provides a good description of the range of entrance strategies used by middle school students. Boys with good grades who hope to enter an elite university aim for the highest academic high school. (There were apparently 8 academic high schools within the district he investigated.) Boys with lower grades but basically sound academic records and girls will try for the second ranked academic high school. Those boys on the border of the academic cutoff may apply to the technical school instead of applying to the lower academic high schools.

Rohlen (1983:122-27) discusses the admissions process in Kobe. He notes that middle school and high school teachers have an "informal system" of cooperation that pre-sorts students so that good students will be assured of passing the exam. He describes how middle school teachers use grades and scores to assess a student's chances of passing the exam at a given school. Parents may disagree with this recommendation, "insisting that their child's name go forward to a school ranked higher than the teacher suggests" but such occurrences are rare and usually disastrous (Rohlen, 1983:127). He also states that because teachers focus their energies on the placement of "top" students, those students applying for the technical or commercial slots may receive little counseling and are not helped by the informal agreements made between middle and high school teachers. This results in intense competition for available slots in the lower-tier high schools in some years and "public vocational and private schools turn away sizable numbers on occasion" (1983:127)

While cooling-out processes may not be readily observable in the Japanese educational system, the system is hardly clear and straightforward and many options are open to students. Parents and teachers spend a great deal of time trying to ascertain what is the "best" path for any given child. In a study of a bedroom community of

Tokyo, Miyagi (1988:38) notes that there were 140 private high schools within commuting distance of students. Add to this number the available public high schools, and a bewildering array of choices awaits parents and students. And -- as tracking is both inflexible and highly stratified at the high school level -- the choice of which high school to apply to has tremendous ramifications. Thus, rather than being a system where all students have equal access to a given resource and educational decisions are arbitrated by a single clear factor, Japanese education appears to be characterized by an array of choices of varying status and by unequal access to resources.

## 4.0 THE EFFECTS OF GENDER AND FAMILY BACKGROUND

At the time of post-secondary school entrance only 13.7 of females enter universities, whereas 38.6% of males do so (Ministry of Education, 1986). At some point in the educational process, gender begins to influence the educational pathways that Japanese students take. Some of these trends may be traced back to childhood and are thought to be active at the middle-school level (Kashiwagi, 1986).

Family background is an important factor in determining what high school children will attend (Rohlen, 1983). A combination of parents' educational attainment, social status and economic resources were shown to be associated with differential rates of participation in elite high schools (Rohlen, 1975; Bowman, 1981). Shimahara (1978:263), in discussing college entrance examinations states that "Contrary to the assumption that CEE [College Entrance Examination] provides all adolescents with a fair opportunity for open competition based upon the criterion of achievement, CEE gives undue advantage to students who have received intensive and costly drilling in examination-taking." Such examination drills, and attendance at juku or "cram schools", are also a part of the high school entrance process. Therefore, it is reasonable to assume that parental education and the family's economic condition will affect a child's choice of high school.

In the early 1960s, Singleton found that rural, middle-school girls were likely to choose less prestigious high schools than boys (Singleton, 1967:20-21). The post-war economic effects were still

rather strong at that time, and it is not clear if Japan's economic success has led to an increased female participation in good high schools. Brinton (1988), arguing from a human capital perspective, makes the point that Japanese families will tend to seek higher educational tracks for their boys than for their girls. Brinton points out that while high school attendance has become the norm in modern Japan (1988:310), males and females have significantly different rates of participation in high status 4-year and low-status 2-year education.

According to Brinton (1988:320), "74.6% of parents report that they hope to receive financial help from a son in old age, but only 6.4% have this expectation from a daughter." As such, we would expect to see a difference in high school aspirations for girls and boys as parents perceive their son's education as an "inter-generational investment." Getting into a good college is costly, often requiring great expense at private cram schools during middle school and high school years (Shimahara, 1978:263). The transition from middle school to high school is a crucial juncture, and those who wish to enter the best colleges must get into one of the top high schools. Families with limited resources would have to choose between their offspring to determine which would receive an elite education.

Since high schools are rigidly divided into college and non-college tracks, one assumption would be that boys will predominate in the upper-level academic schools. However, if we recall Stinchcombe's (1964) notion of labor and marriage markets, we could hypothesize that parents would be eager to have both boys and girls attend upper-level academic high schools <u>for different reasons.</u> Parents may hope that boys will enter a good college in order to secure a job with a prestigious firm. The same parents may also hope that their daughter will enter a good college in order to meet and marry a boy with a bright future!

Scholars familiar with current Japanese society will concur that in the popular culture it is believed that boys will aim higher and go further in their education. It is widely accepted in Japan that boys will strive for important careers while girls will aim to be good wives and mothers. However, while attending high school has become the norm

for most Japanese students (97% of the age cohort is enrolled in high school), it is not clear whether or not there are differences in the types of high schools boys and girls attend.

## 5.0 GRADES AND DECISIONS

The most comprehensive study of the middle school to high school transition is Kariya and Rosenbaum's 1987 study. They found that "Students use their school achievement to preselect themselves for different educational and occupational futures." (1987:178) They also argue that SES is not a major factor in this decision-making process as students plans are most influenced by grades and the rank of the high school they will attend. Parental SES was judged to have little impact on grades at this level (1987:173). In their footnotes they cite evidence from another study (Seiyama and Noguchi, 1984) that shows that parental SES is a less influential factor in the decision-making process than junior-high grades. Given that they see the educational selection process as being quite explicit in Japan, Kariya and Rosenbaum argue that students "examine how they are doing and adapt their plans accordingly." (1987:117)

While the impact of either grades or practice test scores would certainly have the strongest effect in a limited mathematical representation of the selection process, Kariya and Rosenbaum's study largely ignores the literature which details the strong influence of SES on educational attainment in Japan (Shimahara, 1978; Cummings, 1980; Bowman, 1981; Rohlen, 1983). Their study also fails to take into account that gender differences and birth-order differences may make certain strategies more viable than others. By using category of high school as the dependant variable, I believe that significant differences in educational attainment and aspiration will be found for boys and girls as well as for first-born sons.

## 6.0 THE SAMPLE

Six middle schools in a city of 70,000 form the basis of this survey. The city, Takefu, is located on the main island of Honshu in the prefecture of Fukui and lies on a major rail line about one and a half hours from Kyoto. A one-page survey instrument with various questions about family background, school life, choices of high school and sources of information about high schools was developed and critiqued by parents, teachers and students before being distributed. The questionnaire was administered to third-year students during the long homeroom period by the homeroom teachers in the spring of 1988 and again in the spring of 1989. Thus, the survey provides a sampling of student's aspirations and ideas at the beginning and end of their final year in middle school.

The three largest schools in the sample (Table 6.1, numbers 1 to 3) serve a primarily urban population. The other schools serve rural areas where a large percentage of the families still engage in agricultural work. Table 6.2 shows the number and percentage breakdowns for boys and girls in their third year of middle school. In both the population and the sample, the male/female ratio is very near one to one.

Takefu lies in at the southern end of a valley that contains the bulk of the prefectural population. Major industries in the area include a chemical factory, three large electronics firms and a factory that produces a nationally famous line of sportswear. In the outlying regions, a large portion of the work-force is engaged in agriculture or craft production.

TABLE 6.1
MIDDLE SCHOOL POPULATION
1988-89*

| SCHOOL | FEMALE # | FEMALE % | MALE # | MALE % | TOTAL # |
|---|---|---|---|---|---|
| #1 | 524 | 51.5 | 494 | 48.5 | 1018 |
| #2 | 394 | 47.9 | 427 | 52.0 | 821 |
| #3 | 445 | 50.1 | 443 | 49.9 | 888 |
| #4 | 130 | 52.6 | 117 | 47.3 | 247 |
| #5 | 55 | 56.7 | 42 | 43.3 | 97 |
| #6 | 149 | 51.9 | 138 | 48.1 | 287 |
| TOTAL | 1697 | 50.5 | 1661 | 49.5 | 3358 |

*Compiled from prefectural records.

**TABLE 6.2**
REPRESENTATION OF MALES AND FEMALES
IN THE ENTIRE POPULATION AND
THIS SAMPLE OF THIRD-YEAR
MIDDLE SCHOOL STUDENTS

| POPULATION: | GENDER | NUMBER | PERCENT |
|---|---|---|---|
| | MALE | 601 | 50.17 |
| | FEMALE | 597 | 49.83 |
| | TOTAL | | 1198 |

| SAMPLE: | GENDER | NUMBER | PERCENT |
|---|---|---|---|
| | MALE | 580 | 49.79 |
| | FEMALE | 585 | 50.21 |
| | TOTAL | | 1165 |

(Note 10 students failed to indicate gender.)

6.1 The High Schools

Students in Takefu may enter one of several public or private schools in the area. There are 7 public high schools, a branch high school, a "national technical high school", night school and two private schools. Residents of the area have well-defined conceptions of the relative status of these schools. If you have a son or daughter at Takefu High School this is clearly higher in status than having a son or daughter at the commercial or technical school. While working as a teacher in these high schools I also saw mean entrance test scores for these high schools. Those scores coincided roughly with the ranking presented below:[3]

| | | |
|---|---|---|
| 5 | High Academic | Takefu H.S. |
| 4 | Mid-Academic | Takefu East H.S., Sabae H.S. |
| 3 | Low Academic | Tannan, Nyuu, Ikeda Branch and the Private High Schools |
| 2 | Commercial/ Technical | Takefu Industrial H.S., Takefu Commercial H.S. and the National Technical High School |
| 1 | Night School | Offered in the evenings at Takefu High School, as a distinct course of study. |

If entry into elite colleges is used as a criteria for ranking, the same order still holds. For example, every year Takefu high school sends a small number of students to Tokyo University. Occasionally Takefu East or Sabae send a student to Tokyo U. Tannan, Nyuu and the other mid-academic schools such cases are rare. To my knowledge, there have not been any students from the commercial/technical schools to enter Tokyo University in recent history. And, if a student from the night school course were to enter Tokyo U., it would be a matter reported in the regional if not national news.

[3]This data was confidential, and I could not obtain copies from either the schools or the prefectural offices.

## 7.0 GENDER AND HIGH SCHOOL

Let us begin with aspirations. At the beginning of their last year in junior high school, males and females already display some differences in preferences.

TABLE 7.1
RANK OF FIRST-CHOICE OF HIGH SCHOOL
BY GENDER

| | | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|---|
| MALE | N | 141 | 32 | 153 | 139 | 465 |
| | % | 30.32 | 6.88 | 32.90 | 29.89 | 100.00 |
| FEMALE | N | 124 | 40 | 205 | 115 | 484 |
| | % | 25.62 | 8.26 | 42.36 | 23.76 | 100.00 |
| TOTAL | | 265 | 72 | 358 | 254 | 949 |
| | | 27.92 | 7.59 | 37.72 | 26.77 | 100.00 |
| D.F. = 3 | | $X^2$=11.42 | Prob. = .010 | | | |

The association between gender and rank of first-choice high school is statistically significant ($X^2$ = 11.42, P = .01). We see that a greater percentage of boys have indicated the high academic and commercial/technical high schools as their first choice. However, more girls are applying to the mid-level academic schools. In Table 7.2 we see the breakdowns by gender for rank of high school entered. This association is also statistically significant ($X^2$ = 15.17, P = .004)

TABLE 7.2
RANK OF HIGH SCHOOL ENTERED
BY GENDER

| | | NIGHT SCHOOL | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|---|---|
| MALE | N | 17 | 148 | 116 | 112 | 97 | 490 |
| | % | 3.47 | 30.20 | 23.67 | 22.86 | 19.80 | 100.00 |
| FEMALE | N | 13 | 116 | 158 | 144 | 84 | 515 |
| | % | 2.52 | 22.52 | 30.68 | 27.96 | 16.31 | 100.00 |
| TOTAL | N | 30 | 264 | 274 | 256 | 181 | 1005 |
| | % | 2.99 | 26.27 | 27.26 | 25.47 | 18.01 | 100.00 |
| D.F. = 4 | | $X^2$=15.17 | Prob. = .004 | | | | |

In Table 7.2 we see that greater percentages of boys are applying to commercial/technical and high academic tracks, while higher percentages of girls are found in the low- and mid- level tracks. Comparing Tables 7.1 and 7.2 we see considerably smaller percentages in the high academic category. While, differences in percentage of students applying to and entering commercial/technical school have not greatly changed, differences in percentage of students applying to and entering low-level academic tracks have greatly changed. Table 7.3 records these differences.

TABLE 7.3
DIFFERENCES IN PERCENTAGES BETWEEN
FIRST-CHOICE OF HIGH SCHOOL AND HIGH SCHOOL ENTERED
BY GENDER

(HIGH SCHOOL % - FIRST-CHOICE %)

| | | NIGHT SCHOOL | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|---|---|
| MALE | % | +3.47 | -0.12 | +16.79 | -10.04 | -10.09 | |
| FEMALE | % | +2.52 | -3.10 | +22.42 | -14.40 | - 7.45 | |

For both boys and girls the percentages at high- and mid-ranked high schools drop while percentages at the low-level academic category increases. Percentages for girls shows a greater change out of the commercial category as compared with boys. Among girls there appears less of a shift out of the highest-ranked category, while more shift from the middle-ranked schools. It should be noted here that Japanese middle schools have very low-transiency rates during the final year. While I have no way of estimating the actual percentages, during the year I taught at the middle schools, only <u>one</u> third-year student moved away and <u>none</u> moved into the three schools I worked with. Thus we can assume that virtually all of the movement represented in Table 7.3 represents movement between categories <u>not</u> movement into and out of the Takefu school system itself.

While we can see some overall differences in the rates for boys and girls in Table 7.3, most of the movement for both sexes is in the academic track. There is relatively little change in the technical/commercial school category. While these rates do not indicate how individual students moved, I would hypothesize that by the start of the third-year some children are convinced that they are destined for non-academic tracks. Those students who see some possibility of entering an academic high school aspire to high- or mid-level high schools.

Table 7.4 compares answers from the two surveys and provides an indication of how many students showed a change between their first-choice of high school and high school entered. We see that there is a tremendous amount of uncertainty at this time (the last year of junior high) over which school students will attend. More than half the students (boys = 57.7%, girls = 61.2%) indicated a change between the high school they picked as their first-choice at the beginning of the year and the high school they entered.

TABLE 7.4
CHANGE BETWEEN FIRST-CHOICE OF HIGH SCHOOL
AND HIGH SCHOOL ENTERED
BY GENDER

| | | DID NOT CHANGE | DID CHANGE | TOTAL |
|---|---|---|---|---|
| MALE | N | 167 | 228 | 395 |
| | % | 42.28 | 57.72 | 100.00 |
| FEMALE | N | 166 | 262 | 428 |
| | % | 38.79 | 61.21 | 100.00 |
| TOTAL | | 333 | 490 | 823 |
| | | 40.46 | 59.54 | 100.00 |

D.F. = 1 $X^2$ = 1.04 Prob. = .308

TABLE 7.5
CHANGE IN RANK BETWEEN
FIRST-CHOICE OF HIGH SCHOOL AND HIGH SCHOOL ENTERED
BY GENDER

| | | MOVED DOWN | NO CHANGE | MOVED UP | TOTAL |
|---|---|---|---|---|---|
| MALE | N | 139 | 204 | 46 | 389 |
| | % | 35.73 | 52.44 | 11.83 | 100.00 |
| FEMALE | N | 145 | 211 | 69 | 425 |
| | % | 34.12 | 49.65 | 16.24 | 100.00 |
| TOTAL | | 284 | 415 | 115 | 814 |
| | | 34.89 | 50.98 | 14.13 | 100.00 |

D.F. = 2 $X^2 = 3.26$ Prob. = .196

The predominant change in Table 7.5 is downward. While there is some mobility upward, nearly one-third of those who change rank moved down. From Table 7.3 we can surmise that most of this movement was among the academic ranks. This would lead to the conclusion that while students have some knowledge of where they will end up in the high school tracks, among those who aspire to an academic high school, there is a leveling of initial aspirations during the last year of middle school.

7.1 The Case of First-Born Sons

Bowman, 1981:84-86 has already pointed out that first-born (or only sons) will have different educational pathways than other boys (middle or youngest sons). This idea is widely accepted in rural Japan, and many of the "chonan" (Japanese--oldest son) that I met talked about how their life-plans were altered to conform to family goals. Many of the men I met expressed regret that they were unable to try for a prestigious college -- as this would have led to their working in large companies, residence in far-away urban centers, and an inability to inherit the family property and care for the parents. As chonan are expected to inherit property and maintain the family home, they cannot pursue a high-level career. Given these conditions, it is reasonable to assume that first-born sons would have lower educational outcomes than other boys.

TABLE 7.11
TABLE OF BIRTH ORDER BY
RANK OF FIRST CHOICE OF HIGH SCHOOL

| | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|
| MIDDLE OR YOUNGEST | 45<br>34.88 | 9<br>6.98 | 39<br>30.23 | 36<br>27.91 | 129<br>100.00 |
| FIRST BORN | 88<br>27.67 | 22<br>6.92 | 109<br>34.28 | 99<br>31.13 | 318<br>100.00 |
| TOTAL | 133<br>29.75 | 31<br>6.94 | 148<br>33.11 | 135<br>30.20 | 447<br>100.00 |

D.F. = 3 $X^2$ = 2.37 Prob. = .499

TABLE 7.12
TABLE OF BIRTH ORDER BY
RANK OF HIGH SCHOOL ENTERED

| | NIGHT SCHOOL | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|---|
| MIDDLE OR YOUNGEST | 1<br>.96 | 37<br>35.58 | 24<br>23.08 | 16<br>15.38 | 26<br>25.00 | 104<br>100.00 |
| FIRST BORN | 6<br>2.14 | 85<br>30.36 | 64<br>22.86 | 69<br>24.64 | 56<br>20.00 | 280<br>100.00 |
| TOTAL | 7<br>1.82 | 122<br>31.77 | 88<br>22.92 | 85<br>22.14 | 82<br>21.35 | 384<br>100.00 |

D. F. = 4 $X^2$ = 5.06 Prob. = .282

The idea that eldest sons are going into low-track (technical) schools in greater proportions is not substantiated by simply looking at differences between first-born sons and others. Percentages for aspirations are virtually the same for first-born or other sons: Table 7.11 shows a X2 of 2.37 and a probability of .499. (Compare data from the 1960s in Bowman, 1981:84.) As for attainments, (Table 7.12) we find more than a quarter of eldest sons in the mid-level academic schools but only 15% of other sons in that category. However, even for

attainments, the interaction is not significant ($X^2$ = 5.06, P = .282). It is essential that the family must have some heritable property to pass on to a chonan in order to affect their educational aspirations.[4] If the family does not have such property, then investing in the educational career of first-born sons would make more sense.

Analysis of the interaction effects of birth order and presence of heritable property on choice of high school for males is recorded in Table 7.13. The index of heritable property was the number of rooms in the child's house. Small houses had 6 or fewer rooms, medium-size houses 7 or 8 and large houses 9 or more. Children from families who indicated few rooms may well have lived in apartments or rather small houses indicating little property to inherit.

The interaction in Table 7.13 was not found to be significant ($X^2$ = 18.214, P = .374), however, some cell to cell comparisons show interesting differences. First of all, 40% of first-born sons from small houses indicated they aspired to go to the highest-level high school as opposed to other sons (22.22%) from small houses. We can also see that the percentage of first-born sons from medium and large houses aspiring to middle-level academic schools (42.68% and 35.24% respectively) were larger than the corresponding percentages for other sons (30.77% and 22.45%). Other sons from small, medium and large houses recorded greater percentages in the commercial/technical category (37.04%, 38.46% and 34.69%) as compared with first-born sons (25.56%, 30.49% and 24.76%) Overall, 55% of middle and youngest sons aspired to high or mid-ranked high schools, whereas 67% of eldest sons did so.

[4]I owe this insight to Prof. Harumi Befu, Stanford U.

TABLE 7.13
SIZE OF HOUSE BY RANK OF FIRST-CHOICE HIGH SCHOOL
BY BIRTH ORDER.

MIDDLE OR YOUNGEST SONS

| HOUSE SIZE | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|
| SMALL | 10 | 3 | 8 | 6 | 27 |
| | 37.04 | 11.11 | 29.63 | 22.22 | 100.00 |
| | | | (51.85) | | |
| MEDIUM | 10 | 1 | 8 | 7 | 26 |
| | 38.46 | 3.85 | 30.77 | 26.92 | 100.00 |
| | | | (57.69) | | |
| LARGE | 17 | 4 | 11 | 17 | 49 |
| | 34.69 | 8.16 | 22.45 | 34.69 | 100.00 |
| | | | (57.14) | | |
| TOTAL | 37 | 8 | 27 | 30 | 102 |
| | 36.27 | 7.84 | 26.47 | 29.41 | 100.00 |

FIRST-BORN SONS

| HOUSE SIZE | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|
| SMALL | 23 | 6 | 25 | 36 | 90 |
| | 25.56 | 6.67 | 27.78 | 40.00 | 100.00 |
| | | | (67.78) | | |
| MEDIUM | 25 | 4 | 35 | 18 | 82 |
| | 30.49 | 4.88 | 42.68 | 21.95 | 100.00 |
| | | | (64.63) | | |
| LARGE | 26 | 7 | 37 | 35 | 105 |
| | 24.76 | 6.67 | 35.24 | 33.33 | 100.00 |
| | | | (68.57) | | |
| TOTAL | 74 | 17 | 97 | 89 | 277 |
| | 26.71 | 6.14 | 35.02 | 32.13 | 100.00 |

D. F. = 17 $X^2$ = 18.24 Prob. = .374

Table 7.14 gives the breakdowns for high school entered. The interaction presented in this table was not significant ($X^2$ = 29.48 P = .132). But in comparing cell by cell, we again see pertinent differences. First-born sons from large houses showed a far lower percentage (22.43%) entering the highest academic school compared to other sons (36.00%). However, when looking at small houses the percentage of first-born sons in the high academic schools (26.14%) was greater than other sons (14.81%). Looking at middle level schools only, first-born sons showed higher percentages for all house sizes (19.32%, 27.16%, 27.10%) than other sons (11.11%, 15.38%, 16.00%). Overall, other sons showed a larger percentage (35.92%) than first-born sons (30.07%) in the commercial/technical category.

This data does not provide statistically significant evidence of an interaction between size of house, birth-order and high school rank. It should be kept in mind that the indicator of house size (number of rooms) is rough at best. Looking at individual cells, it seems that first-born sons are not entering commercial or technical high schools in greater percentages than other sons even when there is significant property to pass on. This could indicate that previous data (Singleton, 1967; Bowman, 1981) no longer provides a reasonable base for judgement about the educational trajectories of first-born males. Rather than sending first-born sons to technical or agricultural schools (as Singleton and Bowman found) the new trend to "part-time" farming may motivate families to send their eldest sons to academic high schools so they may get a white collar position in a local company and farm on the weekends.

## TABLE 7.14
## HOUSE SIZE BY RANK OF HIGH SCHOOL ENTERED BY BIRTH ORDER

MIDDLE OR LAST SONS

| HOUSE SIZE | NIGHT SCHOOL | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|---|
| SMALL | 1 | 14 | 5 | 3 | 4 | 27 |
| | 3.70 | 51.85 | 18.52 | 11.11 | 14.81 | 100.00 |
| MEDIUM | 0 | 8 | 10 | 4 | 4 | 26 |
| | .00 | 30.77 | 38.46 | 15.38 | 15.38 | 100.00 |
| LARGE | 0 | 15 | 9 | 8 | 18 | 50 |
| | .00 | 30.00 | 18.00 | 16.00 | 36.00 | 100.00 |
| TOTAL | 1 | 37 | 24 | 15 | 26 | 103 |
| | .97 | 35.92 | 23.30 | 14.56 | 25.24 | 100.00 |

FIRST-BORN SONS

| HOUSE SIZE | NIGHT SCHOOL | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|---|
| SMALL | 2 | 29 | 17 | 17 | 23 | 88 |
| | 2.27 | 32.95 | 19.32 | 19.32 | 26.14 | 100.00 |
| MEDIUM | 3 | 27 | 20 | 22 | 9 | 81 |
| | 3.70 | 33.33 | 24.69 | 27.16 | 11.11 | 100.00 |
| LARGE | 1 | 27 | 26 | 29 | 24 | 107 |
| | .93 | 25.23 | 24.30 | 27.10 | 22.43 | 100.00 |
| TOTAL | 6 | 83 | 63 | 68 | 56 | 276 |
| | 2.17 | 30.07 | 22.83 | 24.64 | 20.29 | 100.00 |

D. F. = 22 $X^2$ = 29.48 Prob. = .132

## 8.0 PARENTAL EDUCATIONAL LEVEL AND DECISIONS

Parents who have high levels of educational attainment should be far more knowledgeable about the schooling process than parents with little formal education. Not only will parents with higher levels of education be better able than other parents to provide guidance, they will -- on balance -- have more resources than parents with low educational attainment. Since both Bowman (1981) and Rohlen (1983) found that father's education affected their offspring's educational attainment, I will use this as my main indicator of parental education. I hypothesize that higher levels of parental education will produce the following effects:

- Higher aspirations among children (Section 8.1)
- Higher attainments among children (Section 8.2)
- Better resources available to children (Section 8.3)
- Earlier discussion and planning for high school entrance (Section 8.4)

### 8.1 Aspirations

Students with more highly educated fathers were more sure of their choice of high school than other students. Table 8.11 shows the distribution of students whose first-choice of high school was different from the high school they actually entered. $X^2$ (12.69) with only 3 degrees of freedom is significant (P = .005) for this association. 66% of children with father's who graduated from middle school changed their high school, whereas 46% of students whose father's had gone to college did so. (Please note that where rows or columns total less than 10, percentages have not been calculated.)

When asked if they planned to go to college, students from educated families were more likely to answer in the affirmative. Table 8.12 shows a significant association ($X^2$ = 56.63, P = .000) between father's education and plans to attend college. Just over 90% of students with father's who had some college education indicate a desire to attend college compared with slightly more than 50% for children whose fathers only finished middle school.

TABLE 8.11
FATHER'S EDUCATION BY
CHANGE BETWEEN FIRST-CHOICE OF HIGH SCHOOL
AND HIGH SCHOOL ENTERED

| | DIDN'T CHANGE | DID CHANGE | TOTAL |
|---|---|---|---|
| ELEMENTARY SCHOOL | 2 | 5 | 7 |
| MIDDLE SCHOOL | 61 | 121 | 182 |
| | 33.52 | 66.48 | 100.00 |
| HIGH SCHOOL | 154 | 211 | 365 |
| | 42.19 | 57.81 | 100.00 |
| POST-SECONDARY | 64 | 55 | 119 |
| | 53.78 | 46.22 | 100.00 |
| TOTAL | 281 | 392 | 673 |
| | 41.75 | 58.25 | 100.00 |

D. F. = 3 $X^2$ = 12.69 Prob. = .005

TABLE 8.12
FATHER'S EDUCATIONAL ATTAINMENT
BY
ASPIRATION TO GO TO COLLEGE

| FATHER'S EDUCATION | COLLEGE PLANS NO | YES | TOTAL |
|---|---|---|---|
| ELEMENTARY SCHOOL | 3 | 3 | 6 |
| MIDDLE SCHOOL | 96 | 97 | 193 |
| | 49.74 | 50.26 | 100.00 |
| HIGH SCHOOL | 115 | 260 | 375 |
| | 30.67 | 69.33 | 100.00 |
| POST-SECONDARY | 12 | 111 | 123 |
| | 9.76 | 90.24 | 100.00 |
| TOTAL | 226 | 471 | 697 |
| | 32.42 | 67.58 | 100.00 |

D. F. = 3 $X^2$ = 56.63 Prob. = .000

Children with more highly educated father's aspired to more elite colleges. Table 8.13 shows the distribution for father's education and type of college student's indicated they wished to attend in the future. $X^2$ is 44.10 and significant (P = .000). Of students with college educated fathers, 83% hope to go to a public or private university. 54% of children with fathers who graduated high school aspire to these school and 42% of students whose fathers graduated from middle school aspire to these universities.

TABLE 8.13
FATHER'S EDUCATION
BY
TYPE OF COLLEGE ASPIRED TO

| FATHER'S EDUCATION | TECHNICAL COLLEGE | JUNIOR COLLEGE | PUBLIC UNIVERSITY | PRIVATE UNIVERSITY | OTHER | TOTAL |
|---|---|---|---|---|---|---|
| ELEMENTARY | 0 | 0 | 3 | 0 | 0 | 3 |
| MIDDLE SCHOOL | 26 | 27 | 38 | 8 | 9 | 108 |
| | 24.07 | 25.00 | 35.19 | 7.41 | 8.33 | 100.00 |
| | | | (42.6%) | | | |
| HIGH SCHOOL | 60 | 55 | 122 | 31 | 13 | 281 |
| | 21.35 | 19.57 | 43.42 | 11.03 | 4.63 | 100.00 |
| | | | (54.45) | | | |
| POST-SECONDARY | 9 | 7 | 66 | 24 | 2 | 108 |
| | 8.33 | 6.48 | 61.11 | 22.22 | 1.85 | 100.00 |
| | | | (83.33) | | | |
| TOTAL | 95 | 89 | 229 | 63 | 24 | 500 |
| | 19.00 | 17.80 | 45.80 | 12.60 | 4.80 | 100.00 |

D. F. = 8 $X^2$ = 44.10 Prob. = .000

8.2 Attainments

The next table (Table 8.21) shows father's educational attainment by high school entered. The association between father's education and rank of high school entered is statistically significant ($X^2$ = 80.39, P=.000) Note that over 41% of students whose fathers had completed some post-secondary schooling entered the top-ranked academic high school compared with 11% for students with middle-school graduate fathers. Also note the percentages for students attending the commercial/technical tracks. About 34% of students whose father's highest level of educational attainment was middle school fall this category. For children with high school educated fathers it is 24% but only 11% for children whose fathers completed some post-secondary education.

TABLE 8.21
TABLE OF FATHER'S EDUCATION
BY RANK OF HIGH SCHOOL ENTERED

| FATHER'S EDUCATION | NIGHT SCHOOL | COMMERCIAL/ TECHNICAL | LOW-LEVEL ACADEMIC | MID-LEVEL ACADEMIC | HIGH ACADEMIC | TOTAL |
|---|---|---|---|---|---|---|
| ELEMENTARY SCHOOL | 1 | 3 | 3 | 0 | 0 | 7 |
| | 4.26 | 33.51 | 32.45 | 18.62 | 11.17 | 100.00 |
| MIDDLE SCHOOL | 8 | 63 | 61 | 35 | 21 | 188 |
| | 1.08 | 24.46 | 24.73 | 31.45 | 18.28 | 100.00 |
| HIGH SCHOOL | 4 | 91 | 92 | 117 | 68 | 372 |
| | .00 | 10.92 | 23.53 | 24.37 | 41.18 | 100.00 |
| POST-SECONDARY | 0 | 13 | 28 | 29 | 49 | 119 |
| TOTAL | 13 | 170 | 184 | 181 | 138 | 686 |
| | 1.90 | 24.78 | 26.82 | 26.38 | 20.12 | 100.00 |

D. F. = 12 $X^2$ = 80.39 Prob. = .000

8.3 Resources

Attendance at cram school is an important resource in getting into a good college in Japan (Shimahara, 1978). In Table 8.31 we find a significant relation between parental educational attainment and attendance at cram schools ($X^2$=10.85, P = .013). However, all students indicated rather high levels of attendance at cram schools. Nearly a third of students whose fathers graduated from middle schools said they attended cram schools. There is also some question as to the effectiveness of different types of cram schools: some being nation-wide chains with highly trained staff while others are run by local individuals to supplement family income. Future studies would do well to distinguish between types of cram schools.

TABLE 8.31
FATHER'S EDUCATION BY
ATTENDANCE AT CRAM SCHOOL

| FATHER'S EDUCATION | ATTEND CRAM SCHOOL? NO | YES | |
|---|---|---|---|
| ELEMENTARY SCHOOL | 4 | 3 | 7 |
| MIDDLE SCHOOL | 143<br>67.45 | 69<br>32.55 | 212<br>100.00 |
| HIGH SCHOOL | 243<br>57.72 | 178<br>42.28 | 421<br>100.00 |
| POST-SECONDARY | 70<br>50.36 | 69<br>49.64 | 139<br>100.00 |
| TOTAL | 460<br>59.05 | 319<br>40.95 | 779<br>100.00 |

D. F. = 3 $X^2$ = 10.85 Prob. = .013

8.4 Early Plans for High School

One way in which parent's with high education might help their children aspire to higher schools and exert more effort in their studies is to begin discussing plans for high school at an early age. Yamada (1990) suggests that parents should discuss the different types of schools with children in the first year of middle school and have students draw up a plan of study by the end of the second year. Given that elite sectors of the population try to get their children into elite middle schools and even elite elementary schools, we would expect families with higher levels of educational attainments to begin preparing their children earlier than other families.

Three questions from the survey address this issue. Students were asked when they first talked with friends, teachers and parents about which high school they wanted to go to. A fourth question also asked students how many times they had talked with their homeroom teacher about their choice of high school by the end of the third year.

Table 8.41 gives the Pearson coefficients for father's education and the responses to the four questions. Not only were the relationships between father's education and the other variables non-significant, the correlations were all negative (-.018, -.018, -.03, .037). Although the relations are not statistically significant, the fact that all the correlations are negative suggests that children of less-educated parents may be talking about their choice of high school at an earlier age.

TABLE 8.41
PEARSON COEFFICIENTS FOR
FATHER'S EDUCATION AND DISCUSSION OF HIGH SCHOOL

| | FATHER'S EDUCATION | FIRST-TIME TALKED WITH: FRIEND | PARENT | TEACHER | # TIMES TEACHER |
|---|---|---|---|---|---|
| FATHER'S EDUCATION | 1.000 | | | | |
| FIRST TALKED | | | | | |
| WITH FRIEND | -0.018 | 1.000 | | | |
| WITH PARENT | -0.018 | 0.277* | 1.000 | | |
| WITH TEACHER | -0.030 | 0.343* | 0.127* | 1.000 | |
| NUMBER TIMES TALKED | | | | | |
| WITH TEACHER | -0.037 | 0.042 | -0.038 | 0.047 | 1.000 |

FATHER'S EDUCATION -- 1=ELEMENTARY, 2=MIDDLE, 3=HIGH SCHOOL, 4=POST-SECONDARY

FIRST TALK WITH FRIEND, PARENT, TEACHER -- 1=ELEMENTARY, 2=FIRST YEAR OF MIDDLE SCHOOL, 3=SECOND YEAR OF MIDDLE SCHOOL

# OF TIMES TALKED WITH TEACHER -- 0 to >5.

*Significant at the .05 level

## 9.0 SUMMARY AND DISCUSSION

A majority of students in this sample (59%) made changes in their high school plans during their final year of middle school. Analysis of this data set found that gender and parental educational levels had significant effects on both aspirations and attainments. Rather than having a clear idea of what kind of high school they wished to apply to, nearly fifty percent (49%) of those who returned both surveys indicated that they would attend a high school of a different rank from the one they had aspired to at the start of the year. 35% of students attended lower ranked schools, while 14% attended higher ranked schools. Clearly, the grades and practice test scores students have received up to this point have not given them clear criteria to base their decisions on.

In the midst of this uncertainty, father's educational background was positively associated with aspirations and attainments. Students whose father's had more education had clearer goals, higher aspirations and higher attainments. Clearly, the entrance exam system does not

mediate the effect of social background. Parents are able to pass on to their children a better understanding of their chances in the educational competition, and provide them with the resources to help them succeed. While grades certainly delimit any child's range of attainment, decisions about high school are highly influenced by a child's social background.

Different patterns emerged for males and females, with males attending commercial/technical school in far greater numbers while percentages for females were higher in the low-level academic category. These differences show not only the effect of gender in the attainment process, but point to the fact that there are different high school strategies for boys and girls. Although low-level academic schools are higher in rank than technical/commercial schools boys who fall on the cutoff life between academic and non-academic schools may chose a technical school which would lead them to a secure career in the industrial sector. Greater percentages of girls are found in the low and middle-ranked high schools indicating that they (or their) parents perceive that a high school education is necessary, but that post-secondary schooling is not a high priority.

Given that the best statistical data on middle school to high school movement is drawn from the 1960's (Bowman, 1981) it is prudent to keep in mind that substantial social changes that have occurred in the interim between current research and former studies. The shift in Japanese demographics to nuclear households with few children may well have changed the ways in which parents will "invest" in their offspring. Certainly, it was not the case for this sample that eldest sons are being forced to attend low-ranked high schools when there is property to inherit. Moreover, analyses based on simple divisions of "male" and "female" could mask the complex set of strategies used by different household configurations. Parents with only one or two children may see their daughter's education as an "investment" in the future. Families with several children may neglect the education of younger daughters, concentrating family resources on sons and eldest daughters.

There are significant caveats to the analysis presented in this paper. The model used in this analysis suffers from omitted variable bias insofar as there is no measure of academic performance, nor any data on how students, parents or teachers perceive the importance of academic performance in the decision-making process. I would like to make clear that Kariya and Rosenbaum (1987) have used the strongest mathematical predictors of attainment in their models. Were grades or test scores available for this data set, they would undoubtedly be strongly associated with rank of high school entered. Neither the data presented in this paper nor the data in Kariya and Rosenbaum's work are adequate to model the complex process of decision-making which takes place in the last year of middle school.

Another, equally damaging problem which I have tried to avoid is the problem of high school ranking. In this data set there was considerable change from aspirations to attainment between levels of academic schools. Creating an adequate system for ranking high schools is a major stumbling block in any analysis of the Japanese educational system. If a ranking of high schools merely ranks schools as academic, technical/commercial and night schools, then the analysis will be extremely biased in favor of finding little movement or indecision on the part of students. Most national data sets from Japan make only this simple distinction, and analysis based on such data must be critically interpreted.

Moreover, even a ranking of schools based on entrance test scores or number of graduates sent to elite colleges obscures the multiplicity of strategies involved. As Rohlen noted (Rohlen, 1983), competition for slots may be more intense at lower-levels than at higher levels! I can attest to this case for Fukui where in 1989 the ratio of applicants to open spots for Takefu Technical (a commercial school) was 1.13, but for Nyuu and Sabae high school (low- and mid-ranked academic high schools respectively) the ratios were .98 and .96. The "rank" of a high school is a category, and differences in rank cannot be treated as an interval variable.

Although rank of the school is indeed a primary concern to parents and students, distance, convenience and family ties are also significant factors. Parents without tremendous resources may ask their children to choose a middle-ranked academic high school over the highest-ranked school if the middle-ranked one is more conveniently located. Older siblings or friends might provide a path into certain schools. Moreover, sometimes choosing a high school involves picking both a school and a lane. (Takefu technical has four distinct courses: Civil Engineering, Architecture, Electrical Engineering, Chemical Engineering.) A comprehensive study of these lanes and how students decide to pick one over another remains a significant area for analysis.

## 10.0 CONCLUSION

The concept of "rational choice" -- (a significant part of gender stratification theory and theories of meritocracy) must be carefully applied to non-Western cultures. We must take into account how family background, gender, birth order and other factors are inter-related in the society in question in order to determine how these factors will influence a child's aspirations and attainments. Although Japanese girls attend high school in virtually the same numbers as boys, their goals may be quite distinct. Parents, children and teachers must consider many more factors than just grades in order to make a decision that is rational in terms of Japanese values.

If we create a limited and highly abstract model to represent this process, then grades will certainly be most highly correlated with test scores. As test scores are the single criterion for high school entry, grades will be an excellent predictor of where students go to school. However, as we refine our model, making it more sensitive to the complexities of the real world, we must not only take into account more factors, but also deal with factors that are extremely hard to operationalize.

For example, Kariya and Rosenbaum begin with a simple model that says that grades are clear indicators of a students' chances and provide knowledge that allows students to revise their plans. We might diagram the argument thus:

Model 1

Grades -> Knowledge -> Plans

Later they state that "high school rank has the largest effect on educational plans" and "high school rank mediates much of the effect of grades on educational plans" (1987:175). As they define "educational plans" to mean "number of years of education students expect to attain" this amounts to saying that students revise their decisions when they see whether or not they pass their entrance exams (1987:173). We could then refine our diagram to include this new information:

Model 2

Time 1

Grades -> Knowledge -> Plans

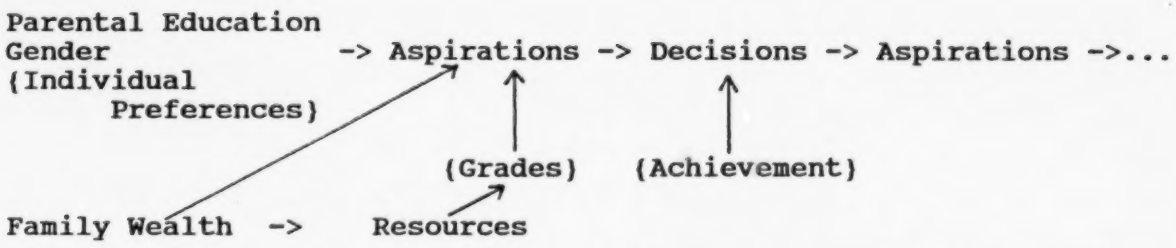
Time 2

Achievement -> Plans

However, Kariya and Rosenbaum's data set excludes students who answered "I don't know" and "other" (1987:173) to the question on educational plans. Thus, Model 2 was found to be accurate only for those students who had some idea of what they wanted to do.

I submit that this kind of analysis does not provide an understanding of how students' make decisions nor does it confirm or disconfirm the presence of cooling-out processes. Model 3 suggests an alternative schematic representation of the decision-making process. Those factors which are not present in the current data set are enclosed in parentheses.

Model 3




In this diagram, a child's aspirations are posited to be influenced by a number of initial factors. These basic factors will continue to exert influence overtime, but are mediated by strong factors imposed by the schooling system. Students, of necessity, mus revise their plans or face severe sanctions imposed by the structure of the educational system. (Such as missing a year of schooling while waiting to re-apply to high school.) The final line in the diagram represents the family's ability to marshall resources to help children succeed in the increasingly competitive system.

Model 3 suggests that Japanese children revise their aspirations after each step in the educational attainment process. Since there are two major organizational constrictions in the process: high school entrance and college entrance, we can expect students to revise their plans significantly after each of these events is passed. This does not, however, indicate that students have a clear idea of their future before these events occur. Rather, it is the finality and universality of the decision that make the system seem "clear" and "uncomplicated". A child may have very high aspirations, however, once the entrance test is passed (or failed) the range of choices available to the child are redefined.

Knowing that high school entrance is the key to their children's future, parents and educators are apprehensive during the last year of middle school. Activities to strengthen ambitions -- extra study sessions and even rituals such as the candle service -- are all employed to get children to "make up their minds". As the educational system allows little room for "second chances" (especially for poorer families) parents and educators go to great lengths to prepare children for this period. Such hyper-consciousness of school status

and rank has fueled the growth of elite educational tracks in the private sector and led to the establishment of ultra-early tracking among the elite circles of Tokyo and other urban core areas.

For the average child, the second-year of middle school is an especially poignant time. The practice tests and long hours of study are only a year away. While their juniors seem like boisterous little children fresh from the playground, their seniors have become quiet and serious with the increasing realization of the important decision that lies ahead. It is at this age (12-14) that children first taste the bitterness of the competition that they will have to endure for the rest of their lives in school. At the end of their middle-school days, students will be ushered into educational tracks that will have repercussions throughout their lives.

BIBLIOGRAPHY


Bowman, Mary Jean. Educational Choice and Labor Markets in Japan. Chicago: University of Chicago Press, 1981.

Brint, Steven and Jerome Karabel. The Diverted Dream. New York: Oxford University Press, 1990.

Brinton, Mary. "The Social-Institutional Bases of Gender Stratification: Japan as an Illustrative Case." American Journal of Sociology. Vol. 94, No. 2 (September, 1988):300-334.

Carnoy, Martin and H.M. Levin. Schooling and Work in the Democratic State. Stanford: Stanford University Press, 1985.

Cummings, William. Education and Equality in Japan. Princeton: Princeton University Press, 1980.

Hayashi, Takeshi. Fuzukeruna! Kosoku Part II. Tokyo: Komadusa Shuppan, 1988.

Japan Times "Incidence of 'Ijime' Declines 40%: Police" September 5, 1986:7.

Kashiwagi, Keiko. "Personality Development of Adolescents." in Stevenson, Harold, Hiroshi Azuma, and Kenji Hakuta (eds.) Child Development and Education in Japan. New York: W.H. Freeman and Co., 1986:167-186.

Karabel, Jerome. "Community Colleges and Stratification." Harvard Educational Review 1972 (42):521-62.

Kariya, Takehiko and Rosenbaum, James. "Self-Selection in Japanese Junior High Schools: A Longitudinal Study of Student's Educational Plans." Sociology of Education 1987, Vol. 60 (July):168-180.

Mainichi Daily News. "Teachers Beat Up More Junior High Students." September 22, 1987:1.

Ministry of Education. Outline of Education in Japan. Tokyo: Ministry of Science, Education and Culture, 1986.

Miyagi, Yuukazu. "Chuugaku ni okeru koukoushingakushidou no mondai ten." (Problem Points in High School Guidance in the Middle School.) Gendai Nihon Shakairon Chiba: Chiba Daigaku, 1988.

Mochidzuki, Kazuhiro. Hankouki Chuugakusei no shinri. (A Time of Resistance, The Psychology of Middle School Students) Tokyo: Asunaru Shobo, 1982.

Rohlen, Thomas P. "Is Japanese Education Becoming Less Egalitarian? Notes on High School Stratification and Reform" Research Report. ERIC, 1975.

Rohlen, Thomas P. Japan's High Schools. Berkeley: University of California Press, 1983.

Seiyama, Kazuo and Yuuji Noguchi. "Koukoushingaku niokeru Gakkougai Kyouikutoushi no Kouka." Kyouiku Shakaigaku Kenkyu 1984 (39):113-126.

Sewell, William and Robert Hauser. Schooling and Achievement in American Society. New York: Academic Press, 1976.

Shimahara, Nobuo. "Socialisation for College Entrance Examinations in Japan" Comparative Education Vol. 14, No. 3 (October, 1978):253-266.

Singleton, John. Nichu: A Japanese School. New York: Holt, Rinehart and Wilson, 1967.

Stinchcombe, Arthur. Rebellion in a High School. New York: Quadrangle Books, 1986.

Yamada, Yoshio. Uchi no ko daijyobu? (Is Our Child O.K.?) Tokyo: Asunaru Shobo, 1990.

Young, Michael. The Rise of Meritocracy 1870-2033. London: Thames and Hudson, 1958